

Advanced, universal, and facile gel spinning-based aerogel fibrillation : in situ fabrication of highly stretchable TPU-silica hybrid network in ambient conditions

Omranpour, Hosseinali; Hassanifard, Soran; Monfared, Ali Reza; **Omranpour Shahreza, Babak**; Salehi, Amirmehdi; Jalali, Amirjalal; Kheradmandkeymoussi, Mohamad; Rahman, Saadman Sakib; Behdinin, Kamran; Park, Chul B. Advanced composites and hybrid materials 2024 / art. 105 <https://doi.org/10.1007/s42114-024-00911-9>

Air vortex assisted electrospinning unit for nanoyarn production

Viirsalu, Mihkel; Kivirand, Teet; Krumme, Andres; Savest, Natalja Baltic Polymer Symposium 2015 : Sigulda, Latvia, September 16-18 : programme and proceedings 2015 / p. 53

Air vortex electrospinning method for nanofiber yarn production [Online resource]

Viirsalu, Mihkel; Savest, Natalja; Krumme, Andres Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fntdk.ut.ee/teesid/>

Alkoxide-based precursors for direct drawing of metal oxide micro- and nanofibres

Tätte, Tanel; **Hussainov, Medhat**; Paalo, Madis; Part, Marko; Talviste, Rasmus; Kiisk, Valter; Mändar, Hugo; Põhako, Kaija; Pehk, Tõnis; Reivelt, Kaido; Natali, Marco; Gurauskis, Jonas; Lõhmus, Ants; Mäeorg, Uno Science and technology of advanced materials 2011 / [12] p.: ill

Alkoxide-based precursors for direct drawing of metal oxide micro- and nanofibres

Tätte, Tanel; **Hussainov, Medhat**; Gurauskis, Jonas; Mändar, Hugo; Kelp, Glen; Rand, R.; Paalo, Madis; Hanschmid, Kelli; **Hussainova, Irina** Technical proceedings of the 2010 NSTI Nanotechnology Conference & Expo : Nanotech 2010. Vol.2, Nanotechnology 2010: Electronics, Devices, Fabrication, MEMS, Fluidics and Computational 2010 / p. 245-248 : ill https://www.researchgate.net/publication/231121928_Alkoxide-based_precursors_for_direct_drawing_of_metal_oxide_micro-_and_nanofibres

Aluminate-based nanostructured luminescent materials : design of processing and functional properties

Rojas Hernandez, Rocio Estefania; Rubio-Marcos, Fernando; Fernandez, Jose Francisco; **Hussainova, Irina** Materials 2021 / art. 4591 <https://doi.org/10.3390/ma14164591> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Aluminum based composite by novelty process : Repetitive Press Roll Bonding (RPRB)

Pramono, Agus; Kollo, Lauri; Veinthal, Renno Procedia chemistry 2015 / p. 473-479 : ill <http://dx.doi.org/10.1016/j.proche.2015.12.081>

Atomic layer deposition of alumina on g-Al₂O₃ nanofibres

Jõgiaas, Taivo; Arroval, Tõnis; **Kollo, Lauri; Hussainova, Irina** Physica status solidi (a) : applications and materials science 2014 / p. 403-408 : ill <https://doi.org/10.1002/pssa.201330083> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bidirectional Mo₄/3CTx MXene/graphene aerogels for tailored microwave absorption

Shamshirgar, Ali Saffar; Qin, Lei; **Rojas Hernandez, Rocio Estefania**; Halim, Joseph; Fernandez, Jose F.; **Hussainova, Irina**; Rosen, Johanna ACS Applied Nano Materials 2025 / p. 1978-1990 <https://doi.org/10.1021/acsanm.4c06555>

Bifunctional oxygen electrocatalyst based on Fe, Co, and nitrogen co-doped graphene-coated alumina nanofibers for Zn-air battery air electrode

Mooste, Marek; Ahmed, Zubair; Kapitulsis, Pavels; **Ivanov, Roman**; Treshchalov, Alexey; Piirsoo, Helle-Mai; Kikas, Arvo; Kisand, Vambola; Kukli, Kaupo; **Hussainova, Irina**; Tammeveski, Kaido Applied Surface Science 2024 / art. 160024 <https://doi.org/10.1016/j.apsusc.2024.160024> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Biomechanical Features of Graphene-Augmented Inorganic Nanofibrous Scaffolds and Their Physical Interaction with Viruse

Gasik, Michael; **Ivanov, Roman**; Kazantseva, Jekaterina; Bilotsky, Yevgen; **Hussainova, Irina** Materials 2021 / art. 164 <https://doi.org/10.3390/ma14010164> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Chemical vapour deposition of graphene coating onto ceramic nanofibers substrates and applications thereof = Grafeenpinde keemiline aursadestus keraamilistele nanokiududele ja nende kasutus

Ivanov, Roman 2017 <https://digi.lib.ttu.ee/i/?9128>

Crack formation during post-treatment of nano- and microfibres prepared by sol-gel technique

Tätte, Tanel; Kolesnikova, Anna; **Hussainov, Medhat**; Talviste, R.; Lõhmus, Rünno; Romanov, Alexey; **Hussainova, Irina**; Part, Marko; Lõhmus, Ants Journal of nanoscience and nanotechnology 2010 / 9, p. 6009-6016 <https://pubmed.ncbi.nlm.nih.gov/21133140/>

Deep-ultraviolet emitter : rare-earth-free ZnAl₂O₄ nanofibers via a simple wet chemical route

Rojas Hernandez, Rocio Estefania; Rubio-Marcos, Fernando; Romet, Ivo; Del Campo, Adolfo; Gorni, Giulio; **Hussainova, Irina**; Fernandez, Jose Francisco; Nagirnyi, Vitali Inorganic Chemistry 2022 / p. 11886-11896 <https://doi.org/10.1021/acs.inorgchem.2c01646> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Deposition of iron oxide nanoparticles on mesoporous alumina network by wet-combustion technology

Kamboj, Nikhil Kumar; Saffarshamshirgar, Ali; Shirshneva-Vaschenko, Elena; **Hussainova, Irina** Materials chemistry and physics 2019 / p. 340-346 : ill <https://doi.org/10.1016/j.matchemphys.2018.12.095> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Direct CVD growth of multi-layered graphene closed shells around alumina nanofibers

Ivanov, Roman; Mikli, Valdek; Kübarsepp, Jakob; Hussainova, Irina Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 77-80 : ill <https://doi.org/10.4028/www.scientific.net/KEM.674.77> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Effect of atomic oxygen irradiation on the structural and tribological properties of the MoS₂/Al₂O₃/PI composites

Zhao, Gai; Wang, Qihua; **Hussainova, Irina;** Ding, Qingjun Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 239-243 : ill <https://doi.org/10.4028/www.scientific.net/KEM.674.239> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Electrocatalysts for oxygen reduction reaction based on electrospun polyacrylonitrile, styrene–acrylonitrile copolymer and carbon nanotube composite fibres

Mooste, Marek; Kibena-Pöldsepp, Elo; **Vassiljeva, Viktoria; Uibu, Mai; Krumme, Andres** Journal of materials science 2019 / p. 11618–11634 : ill <https://doi.org/10.1007/s10853-019-03725-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electroconductive composite of zirconia and hybrid graphene/alumina nanofibers

Hussainova, Irina; Drozdova, Maria; Perez-Coll, Domingo Journal of the European Ceramic Society 2017 / p. 3713-3719 : ill <https://doi.org/10.1016/j.jeurceramsoc.2016.12.033> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electroconductive oxide ceramics with graphene-encapsulated fillers

Hussainova, Irina; Drozdova, Maria; Ivanov, Roman; Kale, Sudhir S.; Jasiuk, Iwona Proceedings of the 42nd international conference on advanced ceramics and composites 2019 / p. 251–258 <https://doi.org/10.1002/9781119543343.ch25> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Electrodeposited ZnO morphology transformations under the influence of SeO₂ additive: Rods, disks, nanosheets network

Gromōko, Inga; Dedova, Tatjana; Polivtseva, Svetlana; Kois, Julia; Puust, Laurits; Sildos, Ilmo; **Mere, Arvo; Krunks, Malle** Thin solid films 2018 / p. 10-15 : ill <https://doi.org/10.1016/j.tsf.2017.12.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrospinning and characterization of continuous piezoelectric nanofibrous yarns

Viirsalu, Mihkel NART 2019 : Nanofibers, Applications and Related Technologies : September 18-September 20, 2019, Liberec, Czech Republic : conference proceedings 2019 / p. 28

Electrospinning of a polymer membrane reinforced with carbon nanotubes = Süsinik nanotorudega tugevdatud polümeerse membraani elektroketrus

Vassiljeva, Viktoria 2017 <https://digi.lib.ttu.ee/i/?9129> https://www.ester.ee/record=b4750923*est

Electrospinning of nanofibrous composites with cellulose acetate, ionic liquids and graphene oxide = Tselluloosatsetaadi, ioonsete vedelike ja grafeenoksiidi nanokiuliste komposiitide elektroketrus

Javed, Kashif 2019 <https://digi.lib.ttu.ee/i/?12424>

Electrospun fibrous materials with propolis extracts for edible food packagings

Zelca, Zane; Merijs-Meri, Remo; **Krumme, Andres;** Bernava, Aina Molecules 2023 / art. 5497 <https://doi.org/10.3390/molecules28145497> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrospun nanofibrous materials for energy storage and harvesting

Krasnou, Illia; Plamus, Tiia; Vassiljeva, Viktoria; Malmberg, Siret; Tarasova, Elvira; Krumme, Andres Baltic Polymer Symposium 2019 : Vilnius, Lithuania, 18-20 September 2019 : programme and proceedings 2019 / p. 27 : ill [Molecularly imprinted polymers](#)

Electrospun polyacrylonitrile-derived Co and Fe containing nanofibre catalysts for oxygen reduction reaction at the alkaline membrane fuel cell cathode

Mooste, Marek; Kibena-Pöldsepp, Elo; **Vassiljeva, Viktoria;** Kikas, Arvo; Käärrik, Maike; Kozlova, Jekaterina; Kisand, Vambola; Külaviir, Marian; Cavaliere, S.; Leis, Jaan; **Krumme, Andres;** Sammelseig, Väino; Holdcroft, Steven; Tammeveski, Kaido ChemCatChem 2020 / p. 4568–4581 : ill <https://doi.org/10.1002/cctc.202000658> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Encapsulated whiskers as electroconductive fillers for ceramics

Hussainova, Irina; Ivanov, Roman; Kale, Sudhir S.; Jasiuk, Iwona Short fibre reinforced cementitious composites and ceramics 2019 / p. 131-[139] https://doi.org/10.1007/978-3-030-00868-0_9

Enhancing NIR emission in ZnAl₂O₄:Nd,Ce nanofibers by co-doping with Ce and Nd: a promising biomarker material with low cytotoxicity

Rojas Hernandez, Rocio Estefania; Rubio-Marcos, Fernando; Gorni, Giulio; Marini, Carlo; Danilson, Mati; Pascual, Laura; Ichikawa, Rodrigo Uchida; Hussainova, Irina; Fernandez, Jose Francisco Journal of materials chemistry C 2021 / p. 657-670 : ill <https://doi.org/10.1039/D0TC04752J> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fabrication of NiO/NiAl₂O₄ nanofibers by combustion method

Aghayan, Marina; Hussainova, Irina Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 31-34 : ill <https://doi.org/10.4028/www.scientific.net/KEM.674.31> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

A few-layered graphene on alumina nanofibers for electrochemical energy conversion

Hussainova, Irina; Ivanov, Roman; Stamatin, Serban; Anoshkin, Ilya; Skou, Eivind; Nasibulin, Albert Carbon 2015 / p. 157-164 : ill <https://doi.org/10.1016/j.carbon.2015.03.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fibrous alumina-based Ni-CeO₂ catalyst : synthesis, structure and properties in propane pre-reforming

Potemkin, D. I.; Aghayan, Marina; Kamboj, Nikhil Kumar; Hussainova, Irina Materials letters 2018 / p. 35-37 : ill <https://doi.org/10.1016/j.matlet.2017.12.039> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fibrous alumina-based Ni-MO_x (M= Mg, Cr, Ce) catalysts for propane pre-reforming

Uskov, S. I.; Potemkin, D. I.; Kamboj, Nikhil Kumar; Snytnikov, P.V.; Hussainova, Irina Materials letters 2019 / art. 126741, 4 p. : ill <https://doi.org/10.1016/j.matlet.2019.126741> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Formation of uniform PVDF fibers under ultrasound exposure in presence of anionic surfactant

Tarasova, Elvira; Tamberg, K.-G.; Viirsalu, Mihkel; Savest, Natalja; Gudkova, Viktoria; Krasnou, Illia; Krumme, Andres Journal of electrostatics 2015 / p. 39-47 : ill <https://doi.org/10.1016/j.elstat.2015.05.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Functionalization of alumina nanofibers with metal oxides = Alumiiniumoksiidnanokiudude funktsionaliseerimine metalloksiididega

Aghayan, Marina 2016 http://www.ester.ee/record=b4560629*est

Functionalization of gamma-alumina nanofibers by alpha-alumina via solution combustion synthesis

Aghayan, Marina; Voltshin, Nikolai; Rodriguez, Miguel Angel; Rubio-Marcos, Fernando; Dong, Minjie; Hussainova, Irina Ceramics international 2014 / p. 12603-12607 : ill <https://doi.org/10.1016/j.ceramint.2014.04.087> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Functionally graded tunable microwave absorber with graphene-augmented alumina nanofibers

Shamshirgar, Ali Saffar; Rojas Hernandez, Rocio Estefania; Tewari, Girish C.; Fernandez, Jose Francisco; Ivanov, Roman; Karppinen, Maarit; Hussainova, Irina ACS applied materials & interfaces 2021 / p. 21613-21625 <https://doi.org/10.1021/acsami.1c02899> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Graphene covered alumina nanofibers as toughening agent in alumina ceramics

Hussainova, Irina; Drozdova, Maria; Aghayan, Marina; Ivanov, Roman; Perez-Coll, Domingo 13th International Ceramics Congress. Part B 2014 / p. 49-53

Graphene-augmented nanofiber scaffolds demonstrate new features in cells behaviour

Kazantseva, Jekaterina; Ivanov, Roman; Gasik, Michael; Neumann, Toomas; Hussainova, Irina Scientific reports 2016 / art. 30150, p. 1-8 : ill <https://doi.org/10.1038/srep30150> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Graphene-augmented nanofiber scaffolds trigger gene expression switching of four cancer cell types

Kazantseva, Jekaterina; Ivanov, Roman; Gasik, Michael; Neuman, Toomas; Hussainova, Irina ACS biomaterials science & engineering 2018 / p. 1622-1629 : ill <https://doi.org/10.1021/acsbiomaterials.8b00228> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Graphene-ceramic hybrid nanofibers for ultrasensitive electrochemical determination of ascorbic acid

Taleb, Masoud; Ivanov, Roman; Bereznev, Sergei; Kazemi, Sayed Habib; Hussainova, Irina Microchimica acta 2017 / p. 897-905 : ill <https://doi.org/10.1007/s00604-017-2085-7> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Graphene-encapsulated aluminium oxide nanofibers as a novel type of nanofillers for electroconductive ceramics

Ivanov, Roman; Hussainova, Irina; Aghayan, Marina; Drozdova, Maria; Perez-Coll, Domingo; Rodriguez, Miguel Angel; Rubio-Marcos, Fernando Journal of the European Ceramic Society 2015 / p. 4017-4021 : ill <https://doi.org/10.1016/j.jeurceramsoc.2015.06.011>

Hierarchically structured functional ceramic composites with graphene augmented nanofibers = Hierarhiliselt struktureeritud funktsionaalsed keraamilised komposiidid grafeenlisandiga nanokiududega

Saffarshamshirgar, Ali 2021 https://www.ester.ee/record=b5453046*est <https://digikogu.taltech.ee/et/Item/13881820-10e9-4116-bf2c-440a4c2f7b9b> <https://doi.org/10.23658/taltech.42/2021>

Highlights of Estonian Engineering and Technology Sciences

Higher Education and Research in Estonia 2019 / p. 45 : ill <https://www.digar.ee/viewer/et/nlib-digar:434236/368591/page/47>
https://www.ester.ee/record=b5246114*est

Homogeneous deposition of copper oxide on mesoporous 1D alumina nanofibres by combustion approach

Kirakosyan, Khachatur; Aghayan, Marina; Rodriguez, Miguel Angel; **Taleb, Masoud; Hussainova, Irina** Proceedings of the Estonian Academy of Sciences 2016 / p. 97-100 : ill https://artiklid.elnet.ee/record=b2768206*est <https://doi.org/10.3176/proc.2016.2.06>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hot and cold of pressing effect on ECAP-parallel channel composite based on Al/ANF material

Pramono, Agus; Kommel, Lembit; Kollo, Lauri; Veinthal, Renno Advanced materials research 2015 / p. 343-347
<http://dx.doi.org/10.4028/www.scientific.net/AMR.1123.343>

Hybrid graphene/alumina nanofibers for electroconductive zirconia

Drozdova, Maria; Perez-Coll, Domingo; **Aghayan, Marina; Ivanov, Roman;** Rodriguez, Miguel Angel; **Hussainova, Irina** Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 15-20 : ill
<https://doi.org/10.4028/www.scientific.net/KEM.674.15> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Hybrid graphene-ceramic nanofibre network for spontaneous neural differentiation of stem cells

Kazantseva, Jekaterina; **Hussainova, Irina; Ivanov, Roman;** Neumann, Toomas; Gasik, Michael Interface focus 2018 / 6 p. : ill
<https://doi.org/10.1098/rsfs.2017.0037> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Impact of 1-butyl-3-methylimidazolium chloride on the electrospinning of cellulose acetate nanofibers

Javed, Kashif; Krumme, Andres; Krasnou, Illia; Mikli, Valdek; Viirsalu, Mihkel; Plamus, Tiia; Vassiljeva, Viktoria; Tarasova, Elvira; Savest, Natalja; Mendez, James D. Journal of macromolecular science, part A : pure and applied chemistry 2018 / p. 142-147 : ill <https://doi.org/10.1080/10601325.2017.1387861> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of interphases on the mechanical properties of alumina nanofibers reinforced alumina nanocomposite

Aghayan, Marina; Hussainova, Irina; Gasik, Michael; **Kollo, Lauri** Proceedings of the 1st ISN2A, 1st International Symposium on Nanoparticles/Nanomaterials and Applications : Caparica - Almada, Portugal, 20th-22th January 2014 2014 / p. 97

Influence of preparation process on morphology and conductivity of carbon black-based electrospun nanofibers

Tarasova, Elvira; Byzova, Arina; Savest, Natalja; Viirsalu, Mihkel; Gudkova, Viktoria; Märtson, Triin; Krumme, Andres Fullerenes, nanotubes and carbon nanostructures 2015 / p. 695-700 : ill <https://doi.org/10.1080/1536383X.2014.974090> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Investigation of influence of conductivity on the polyaniline fiber mats, produced via electrospinning

Varnaite-Žuravliova, Sandra; **Savest, Natalja;** Abraitiene, Aušra; Baltušnikaite-Guzaitiene, Julija; **Krumme, Andres** Materials Research Express 2018 / art. 055308 <https://doi.org/10.1088/2053-1591/aac4ea> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The investigation of the production of salt-added polyethylene oxide/chitosan nanofibers

Varnaite-Žuravliova, Sandra; **Savest, Natalja;** Baltušnikaite-Guzaitiene, Julija; Abraitiene, Aušra; **Krumme, Andres** Materials 2024 / art. 132 <https://doi.org/10.3390/ma17010132> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Iron and cobalt phthalocyanine embedded electrospun carbon nanofiber-based catalysts for anion exchange membrane fuel cell cathode

Muuli, Kaur; Sokka, Andri; Mooste, Marek; Lilloja, Jaana; **Gudkova, Viktoria;** Käärik, Maike; Otsus, Markus; Kikas, Arvo; Kisand, Vambola; Tamm, Aile; Leis, Jaan; **Krumme, Andres** Journal of Catalysis 2023 / p. 117-130 <https://doi.org/10.1016/j.jcat.2023.04.008>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Iron, cobalt, and nickel phthalocyanines tri-doped electrospun carbon nanofibre-based catalyst for rechargeable zinc-air battery air electrode

Muuli, Kaur; Rohit Kumar; Mooste, Marek; **Gudkova, Viktoria;** Treshchalov, Alexey; Piirsoo, Helle-Mai; Kikas, Arvo; Aruväli, Jaan; Kisand, Vambola; Tamm, Aile; **Krumme, Andres;** Moni, Prabu; Wilhelm, Michaela; Tammeveski, Kaido Materials 2023 / art. 4626 <https://doi.org/10.3390/ma16134626> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Low temperature, spark plasma sintering behavior of zirconia added by a novel type of alumina nanofibers

Voltšihin, Nikolai; Rodriguez, Miguel Angel; **Hussainova, Irina**; **Aghayan, Marina** Ceramics international 2014 / p. 7235-7244 : ill <https://doi.org/10.1016/j.ceramint.2013.12.063> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mechanical properties and self-healing capacity of ultra high performance fibre reinforced concrete with alumina nanofibres : tailoring ultra high durability concrete for aggressive exposure scenarios

Cuenca, Estefania; D'Ambrosio, Leonardo; Lizunov, Dennis; **Tretjakov, Aleksei**; **Volobujeva, Olga**; Ferrara, Liberato Cement and concrete composites 2021 / art. 103956, 17 p <https://doi.org/10.1016/j.cemconcomp.2021.103956> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mesoporous fibrous silicon nitride by catalytic nitridation of silicon

Minasyan, Tatevik; **Liu, Le**; Aghayan, Marina; Rodriguez, Miguel Angel; **Aydinyan, Sofiya**; **Hussainova, Irina** Progress in natural science: materials international 2019 / p. 190-197 : ill <https://doi.org/10.1016/j.pnsc.2019.03.017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A method for producing conductive graphene biopolymer nanofibrous fabrics by exploitation of an ionic liquid dispersant in electrospinning

Javed, Kashif; **Krumme, Andres**; **Viirsalu, Mihkel**; **Krasnou, Illia**; **Plamus, Tiia**; **Vassiljeva, Viktoria**; **Tarasova, Elvira**; **Savest, Natalja**; **Mere, Arvo**; **Mikli, Valdek**; **Danilson, Mati**; **Kaljuvee, Tiit**; Lange, Sven Carbon 2018 / p. 148-156 : ill <https://doi.org/10.1016/j.carbon.2018.08.034> <https://novaator.err.ee/873101/ttu-teadlaste-arendatud-tselluloosikangaga-saab-vajadusel-laadida-telefoni> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Nanokiulised materjalid

Krumme, Andres; **Viikna, Anti**; **Plamus, Tiia**; **Viirsalu, Mihkel** Teadusmõtte Eestis (X). Tehnikateadused. 3 : [artiklikogumik] 2019 / lk. 75-84 : ill., fot https://www.ester.ee/record=b5208765*est

Novel alumina-nanocarbon hybrids

Hussainova, Irina; Anoshkin, Ilya; **Ivanov, Roman**; **Kübarsepp, Jakob** 38th International Conference & Exposition on Advanced Ceramics and Composites : abstract book : January 26-31, 2014, Daytona Beach, Florida 2014 / p. 117

A novel approach to electroconductive ceramics filled by graphene covered nanofibers

Drozdova, Maria; **Hussainova, Irina V.**; Pérez-Coll, Domingo; **Aghayan, Marina**; **Ivanov, Roman A.**; Rodríguez, M. A. Materials and Design 2016 / p. 291 - 298 <https://doi.org/10.1016/j.matdes.2015.10.148> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Novel method for producing electrospun composite nanofibre yarns

Viirsalu, Mihkel; **Savest, Natalja**; **Plamus, Tiia**; **Vassiljeva, Viktoria**; **Krumme, Andres** Proceedings of the Estonian Academy of Sciences 2018 / p. 169-174 : ill <https://doi.org/10.3176/proc.2018.2.09> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Performance of TiO2:SM3+ based optical sensor embedded in cavitated polymer films

Tikk, Taavi; Lange, Sven; Paara, Tõnis; Eltermann, Marko; **Krumme, Andres** Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 62 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Periodic functionalization of graphene-layered alumina nanofibers with aromatic thermosetting copolyester via epitaxial step-growth polymerization

Bakir, Mete; Meyer, Jacob L.; **Hussainova, Irina**; Sutrisno, Andre; Economy, James; Jasiuk, Iwona Macromolecular chemistry and physics 2017 / art. 1700338, 6 p. : ill <https://doi.org/10.1002/macp.201700338> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Polymer nanofiber deposition in lab-on-a-chip devices by electrospinning

Pardy, Tamas; **Jõemaa, Rauno**; Ender, Ferenc; **Rang, Toomas**; Hegedus, Kristof; Balogh-Weiser, Diana 2020 17th Biennial Baltic electronics conference, Tallinn, Estonia, October 6-8, 2020 : proceedings 2020 / 4 p. : ill <https://doi.org/10.1109/BEC49624.2020.9277494>

Properties of chitin extracted from Estonian mushrooms

Baumgartner, Stephanie; **Viirsalu, Mihkel**; **Krumme, Andres**; Mendez, James Proceedings of the Estonian Academy of Sciences 2019 / p. 333-336 : ill http://www.kirj.ee/32362/?tpl=1061&c_tpl=1064 <https://doi.org/10.3176/proc.2019.3.09> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Propolis nanofibers : development and effect against SARS-CoV-2 virus and S. aureus, S. enterica bacteria

Zelca, Zane; **Krumme, Andres**; Kukle, Silvija; **Krasnou, Illia** Materials today chemistry 2023 / art. 101749 <https://doi.org/10.1016/j.mtchem.2023.101749> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A Review on graphene-based electrospun conductive nanofibers, supercapacitors, Anodes, and cathodes for lithium-ion batteries

Javed, Kashif; Oolo, Marco; Savest, Natalja; Krumme, Andres Critical Reviews in Solid State and Materials Sciences 2019 / p. 427-443 : ill <https://doi.org/10.1080/10408436.2018.1492367> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Spinel alumina nanofibers synthesis via ALD coating of alumina nanofibers

Rauwel, Erwan; Nilsen, Ola; Rauwel, Protima; Galeckas, Augustinas; Wragg, David; Walmsley, John; Hussainova, Irina; Soots, Karel WG2 workshop and 4th ALDCoE annual seminar : 23-24 May 2016, Helsinki, Finland : abstracts 2016 / [1] p. : ill

Structure and rheological behavior of alkoxide-based precursors for drawing of metal oxide micro- and nanofibres

Hussainov, Medhat; Tätte, Tanel; Paalo, Madis; Gurauskis, Jonas; Mändar, Hugo; Lõhmus, Ants Advanced materials research 2011 / p. 354-358 https://www.researchgate.net/publication/240305001_Structure_and_Rheological_Behavior_of_Alkoxide-Based_Precursors_for_Drawing_of_Metal_Oxide_Micro-_and_Nanofibres

Tehnikateaduste valdkonna aastapreemia teadustöö "Nanokiudude võrgustik baasina multifunktsionaalsete hübriidmaterjalide tööstuslikes rakendustes" eest : Irina Hussainova. Nanokiudude võrgustik baasina mitmfunktsiooniliste hübriidmaterjalide läbimurdeks

Hussainova, Irina Eesti Vabariigi preemiad 2019 : teadus. F. J. Wiedemanni keeleaühind. Kultuur. Sport 2019 / lk. 108-117 : ill., portr https://www.ester.ee/record=b1226072*est

Tehnikaülikooli teadlased arendavad nutikat tekstiili

Imeline Teadus 2018 / lk. 21 : fot https://www.ester.ee/record=b2747925*est

The impact of 1-butyl-3-methylimidazolium chloride on electrospinning process of SAN polymer solutions and electrospun fiber morphology

Gudkova, Viktoria; Krumme, Andres; Märtson, Triin; Rikko, M.; Tarasova, Elvira; Viirsalu, Mihkel Journal of electrostatics 2014 / p. 433-436 : ill <https://doi.org/10.1016/j.elstat.2014.08.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The influence of alumina and zirconia coats on the tribological properties of alumina nanofibers

Aghayan, Marina; Gasik, Michael; Kollo, Lauri; Hussainova, Irina; Rodriguez, Miguel Angel CIMTEC 2014 : 13th International Ceramics Congress : Montecatini Terme, Tuscany, Italy, June 8-13, 2014 : book of abstracts 2014

The influence of conductive additives on the mechanical properties of electrospun mats = Juhtivate lisandite mõju elektrokedratud nanokiuliste lausmaterjalide mehaanilistele omadustele

Plamus, Tiia 2018 <https://digi.lib.ttu.ee/i/?11197> https://www.ester.ee/record=b5178372*est

The investigation of chitosan/polyethylene oxide nanofibers produced by electrospinning

Varnaite-Žuravliova, Sandra; **Savest, Natalja**; Baltušnikaitė, Julija; Abraitienė, Aušra; **Krumme, Andres** Book of abstracts of the 17-th International Conference-School Advanced Materials and Technologies : 27-31 August 2015, Palanga, Lithuania 2015 / p. 142

The template-assisted wet-combustion synthesis of copper oxide nanoparticles on mesoporous network of alumina nanofibers

Aghayan, Marina; Hussainova, Irina; Kirakosyan, Khachatur; Rodriguez, Miguel Angel Materials chemistry and physics 2017 / p. 138-146 : ill <https://doi.org/10.1016/j.matchemphys.2017.01.068> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The template-assisted wet-combustion synthesis of fibrous nickel-based catalyst for carbon dioxide methanation and methane steam reform

Aghayan, Marina; Potemkin, D. I.; Rubio-Marcos, Fernando; Hussainova, Irina ECerS 2017 : 15th Conference & Exhibition of the European Ceramic Society, July 9–13, 2017, Budapest, Hungary : Book of abstracts 2017 / p. 419 : ill <https://static.akcongress.com/downloads/ecers/ecers2017-abstract-book.pdf>

The template-assisted wet-combustion synthesis of fibrous nickel-based catalyst for carbon dioxide methanation and methane steam reforming

Aghayan, Marina; Potemkin, D. I.; Rubio-Marcos, Fernando; Uskov, S. I.; Snytnikov, N.; Hussainova, Irina ACS applied materials and interfaces ACS applied materials & interfaces 2017 / p. 43553-43562 : ill <https://doi.org/10.1021/acsami.7b08129> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermal and microstructural analysis of doped alumina nanofibers

Aghayan, Marina; Gasik, Michael; Hussainova, Irina; Rubio-Marcos, Fernando; Kollo, Lauri; Kübarsepp, Jakob Thermochemica acta 2015 / p. 43-48 : ill <https://doi.org/10.1016/j.tca.2015.01.009> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

3D alumina-graphene hybrid nanofibers as a binder-free cathode for rechargeable LiIS batteries

Taleb, Masoud; Ivanov, Roman; Hussainova, Irina Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference

Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 191-196 : ill
<https://www.scientific.net/KEM.799.191> https://www.eester.ee/record=b5235278*est <https://doi.org/10.4028/www.scientific.net/KEM.799.191>
[Conference proceeding at Scopus](#) [Article at Scopus](#)

Time-effective synthesis of rhombohedral CuAlO₂ from mesoporous alumina substrate

Saffarshamshirgar, Ali; Aghayan, Marina; Tripathi, Tripurari S.; Karppinen, Maarit; Gasik, Michael; **Hussainova, Irina** Materials & design 2018 / p. 48-55 : ill <https://doi.org/10.1016/j.matdes.2018.03.031> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Time-effective synthesis of rhombohedral CuAlO₂ from mesoporous alumina substrate [Online resource]

Saffarshamshirgar, Ali; Aghayan, Marina; Tripathi, Tripurari S.; Karppinen, Maarit; Gasik, Michael; **Hussainova, Irina** Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märtsil 2018, Tallinn : teesid] GSFMT Scientific Conference 2018 : Tallinn, March 7-8, 2018 : abstracts 2018 / 1 p <http://fmtdk.ut.ee/teesid-2018/>

Towards controllable electrospinning: a systematic analysis of the effect of input parameters on nanofiber morphology

Mahdian, Mehrab; Stummer, Tamas; Sepsik, Norman; **Ender, Ferenc;** Balogh-Weiser, Diana; **Pardy, Tamas** techrxiv.org 2025 / 86 p <https://doi.org/10.36227/techrxiv.174662365.53016549/v1>

TTÜ teadlaste arendatud tselluloosikangaga saab vajadusel laadida telefoni [Võrguväljaanne]

novaator.err.ee 2018 / fot <https://novaator.err.ee/873101/ttu-teadlaste-arendatud-tselluloosikangaga-saab-vajadusel-laadida-telefoni>

Ultrahigh aspect ratio alumina nanofibers as reinforcements

Hussainova, Irina; Gasik, Michael; **Aghayan, Marina** 38th International Conference & Exposition on Advanced Ceramics and Composites : abstract book : January 26-31, 2014, Daytona Beach, Florida 2014 / p. 117

Ultra-sensitive voltammetric simultaneous determination of dopamine, uric acid and ascorbic acid based on a graphene-coated alumina electrode

Taleb, Masoud; Ivanov, Roman; Bereznev, Sergei; Kazemi, Sayed Habib; **Hussainova, Irina** Microchimica acta 2017 / p. 4603-4610 : ill <https://doi.org/10.1007/s00604-017-2510-y> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ultra-wideband integrated graphene-based absorbers for terahertz waveguide systems

Campion, James; Xenidis, Nikolaos; Smirnov, Serguei; **Ivanov, Roman;** Oberhammer, Joachim; **Hussainova, Irina;** **Lioubtchenko, Dmitri** Advanced Electronic Materials 2022 / art. 2200106 <https://doi.org/10.1002/aelm.202200106> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear performance of hierarchically structured alumina reinforced by hybrid graphene encapsulated alumina nanofibers

Hussainova, Irina; Baroninš, Janis; Drozdova, Maria; Antonov, Maksim Wear 2016 / p. 287-295 : ill
<https://doi.org/10.1016/j.wear.2016.09.028> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Versatile graphene-alumina nanofibers for microwave absorption and EMI shielding

Saffar Shamshirgar, Ali; Alvarez, Maria Fernandez; Del Campo, Adolfo; Fernandez, Jose Francisco; Rojas Hernandez, Rocio Estefania; Ivanov, Roman; Rosen, Johanna; **Hussainova, Irina** Carbon 2023 / art. 118057 <https://doi.org/10.1016/j.carbon.2023.118057>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)